MARINE REVIEW.

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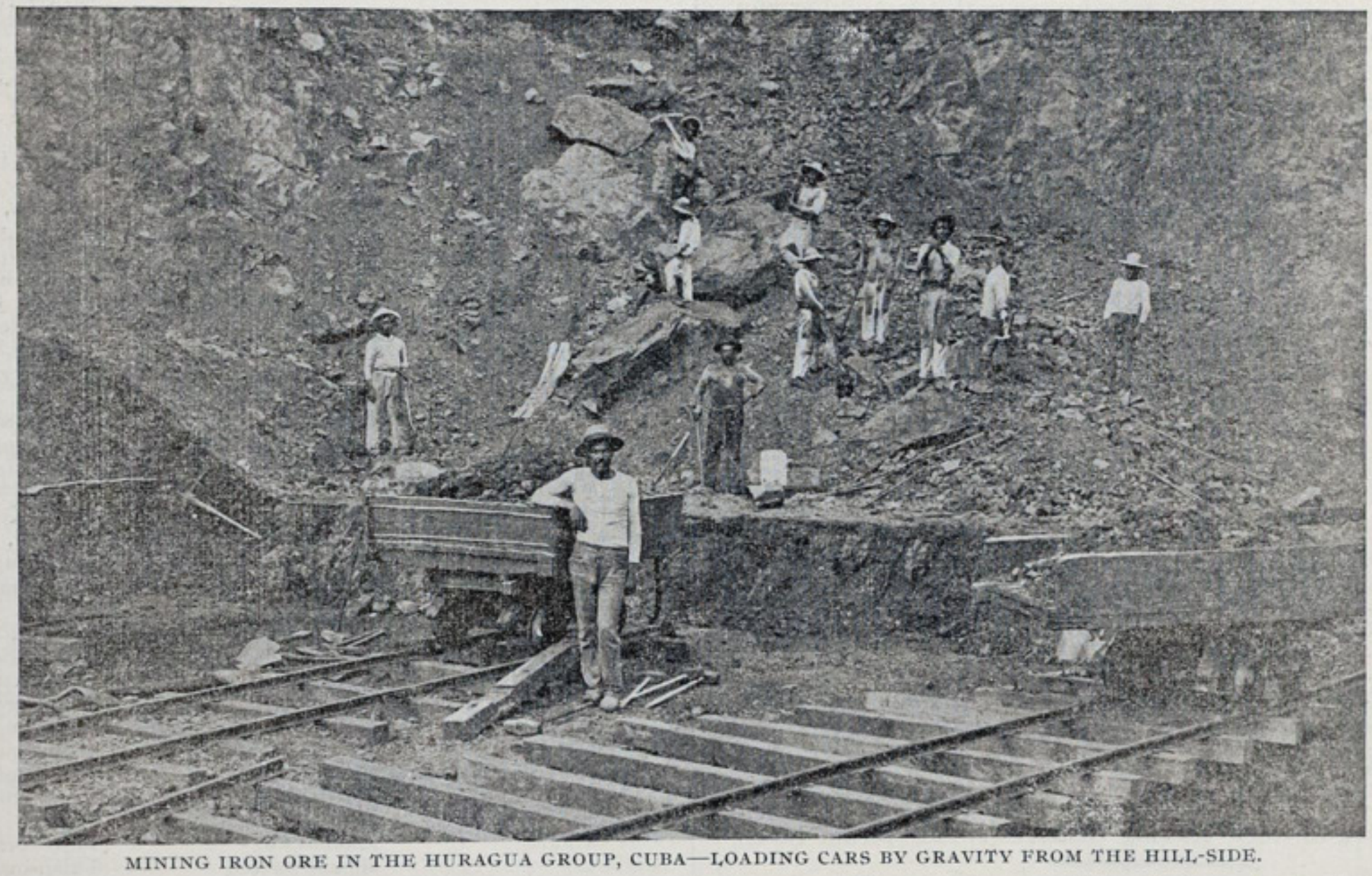
Extent of Cuban Ore Deposits.

On account of the interests which the American Steel Barge Company and Messrs. G. H. and S. P. Ely of Cleveland hold in Cuban iron mining properties, and in view of the probability of the duty on iron ore being removed a year hence by the incoming Democratic administration, renewed attention is now being given to these Cuban mines. As noted a few days ago, a second of the Cuban mining corporations, the Sigua Iron Company, has made its first shipment of ore to this country in a whaleback steamer, the Joseph L. Colby, and it is explained that in the construction of docks and in handling the ore all work is done after the improved methods in use on Lake Superior. Many of the stockholders of the barge company are also stockholders in the Sigua company, and this will explain why Lake Superior methods are in use at the Sigua mines, as well as the mines of the Spanish-American Company, in which the Messrs. Ely are interested, and from which shipments will also begin in the near future. The accompanying engraving from the Engineering Magazine of New York will tend to show the wonderful extent of iron ore deposits in this new mining region. Notwithstanding advantages in cost of mining, well informed iron men are not, however, of the opinion that this ore will compete directly, even in event of a removal of the duty, with Lake Superior ores west of the Alleghenies. The cost of the long railway haul from the seaboard would be against such competition. It is thought, however, that this ore, if admitted free to eastern manufacturers, would enable them to compete more extensively with the manufacturers of Pittsburg and the Mahoning valley and thus injure, indirectly, the market for the Lake Superior ores.

The Cuban iron ore deposits are found in the Sierra Maestra range of mountains, which skirts the southern coast of the province of Santiago de Cuba. and they form one of the most important groups of non-phosphoric Bessemer iron mines in the world. Many cargoes of the ore have turned out between 58 and 64 per cent. of metallic iron and as high as 69 per cent. in picked samples. This ore can be mined with great facility, since no shafting or tunneling is required, but only side-hill cuts. Though this mineral had long been known to exist in Cuba, it was not until 1880 that the people awoke to a full realization of the enormous wealth that is stored up in the mountains. During that year many applications were filed in the government offices for titles of ownership. Shortly afterwards negotiations were closed with a syndicate of Pennsylvania capitalists for the sale of the Juragua group of mines, and concessions were obtained from the government to build a narrow guage railroad from the mines to the port of Santiago de Cuba, this railroad to be exempt from taxation for ninety-nine years and all the material required for its construction and maintenance to be admitted free of duty. Seventeen miles were built through a very mountainious country, and the first carload of ore was shipped late in 1884. During 1891 about 330,000 tons of ore were shipped, the handling of which required twenty locomotives and more than 2,000 cars. It is estimated that over $3,000,000 has been spent in this enterprise with gratifying financial results. The Juragua company controls a regular line of iron steamers plying between its iron ore pier in the port of Santiago de Cuba and North American ports. Most of the ore is consumed by the Pennsylvania Steel Company and the Bethlehem Iron Company. In 1890 the Sigua Iron Company, composed of Philadelphia capitalists, was organized, which purchased another group of mines in the same range, about thirty miles from Santiago de Cuba. They have built eight miles of a standard guage railroad to the coast, and a pier, supporting ore pockets of 5,000 tons capacity. The Spanish-American Iron Company with western capital and headquarters in New York, is another concern which is now developing a third group of iron mines situated between Juragua and Sigua. The mines are four miles inland and the railroad and ore docks are now being constructed. There are many more groups of rich Bessemer iron mines in the same range.



MINING IRON ORE IN THE HURAGUA GROUP, CUBA—LOADING CARS BY GRAVITY FROM THE HILL-SIDE.

Wonderful Growth in Steam Tonnage on the Lakes.

rom the annual report of James A. Dumont, supervising inspector general of steam vessels. we again take some figures that show the wonderful increase in number and tonnage of steam vessels on the lakes. This report, which is addressed to the secretary of the treasury, shows that during the year ending June 30, 1892, there was inspected on the lakes 1,973 steam vessels of 601,903.73 net tons, while the number of vessels inspected on the Atlantic coast during the same period was 3,479 of 570,-408.77 net tons. As all steam vessels in the United States must be inspected once a year, these figures practically represent the entire steam tonnage of the country. The following table shows the number and tonnage of steam vessels inspected in the several divisions of navigation during the year:

Divisions.	Steamers.	Net Tonnage.	Officers Licensed.
Pacific coast	679	150,270.58	3,282
Atlantic coast	3,479	570,408.77	15,190
Western rivers	1,016	161.154.62	6,867
Northern lakes	1,973	601,903.73	8,370
Gulf coast	514	62,587.59	2,811
Total	7,661	1.546,325.29	36,520

A glance at the above table shows that the tonnage of steam vessels on the lakes is greater than that of the Atlantic and Gulf coasts combined. Compare the number of steam vessels on the Atlantic coast and their aggregate tonnage with the number and tonnage of steam vessels on the lakes, and it will be found that the average size of steam vessels on the coast is but 163.96 net tons, while the average on the lakes is 305.07 tons. Figures in both cases include, of course, harbor tugs and small steam vessels of all kinds coming under the rules of the inspection service, as well as large freight and passenger steamers.

General Dumont's report presents also the number and tonnage of vessels inspected in the different districts throughout the country, and from a table covering this data there is shown below the work of the service in thirteen leading local districts:

Local Districts.	No. of Steam Vessels Inspected.	Net Registered Tonnage.
New York, N. Y.	1,198	273,804.28
Buffalo, N. Y.	355	164.837.54
Cleveland, O	308	136,770.78
San Francisco, Cal.	258	99.503.65
Chicago, Ill	209	75,963.70
Philadelphia, Pa.	370	71,021.22
Baltimore, Md.	314	59,055.50
New Orleans, La.	280	52,707.18
Milwaukee, Wis.	193	51,854.98
Boston, Mass	468	51,446.91
Detroit, Mich.	151	50,784.24
Duluth, Minn	173	46,531.66
Port Huron, Mich.	204	41,157.23

Of the above thirteen leading districts six are on the lakes.

Heavy Forgings.

Lieut. W. H. Jaques, ordnance engineer, furnishes the following data concerning the shafting and other heavy steel forgings manufactured by the Bethlehem Iron Company for the United States protected cruiser Olympia, (Cruiser No. 6), launched from the yard of the Union Iron Works, San Francisco, Nov. 5. They are all of fluid compressed, hydraulic forged open steel:

No.	Name of part.	Length of each.		Diam.	Diam. of hole.	Approx. weight of each.
		Ft.	In.	In.	In.	Lbs.
2	Propeller shafts	39	0	16	7½	20,600
2	Line shafts	35	0	15¾	7½	19,554
2	Thrust shafts	19	5½	15¾	7½	11,900
7	* Single throw cranks	9	7½	16	7½	8,400
6	Connecting rods	8	8½	.....	.....	5,000

* Interchangeable and reversible.

Marine Review for one year and Patterson's Nautical Dictionary for $6.

The New Course up Lake Michigan.

It has been frequently claimed since the loss of the steamer W. H. Gilcher that had Capt. Weeks, after reaching the Straits on the fatal trip up Lake Michigan to Milwaukee, followed the course to the north and west of the Beavers by Seul Choix point and Squaw island, instead of the old course by the Fox and Manitou islands, his vessel would not have met with disaster. While it is certain that the new course, which is now fully lighted, is pronounced far better in nortwesterly gales than the old course up the lakes, and while it is also true that this new course is probably not followed as often by some masters as it might be to advantage, this argument amounts to very little in the case of the Gilcher. Laying aside the very strong belief that the Gilcher was in collision with the schooner from which wreckage has since been found in close proximity to that of the steamer, it can be said with a reasonable degree of certainty that the fierce storm was unthought of when Capt. Weeks left the Straits with his vessel, and had he taken the old course even in bad weather, when bound to Milwaukee, his action would not be considered a serious matter of judgement against him.

Do You Want a Photograph of Your Steamer?

To accommodate subscribers who are anxious to secure photographs of lake steamers in which they are in any way interested the Marine Review has made a collection and is able to furnish 7x9 photographs, well mounted, of the following steamers at $1 each. Write to the Marine Review, 516 Perry-Payne building, Cleveland, O.:

Arabia,
America,
Averell, W. J.,
Avery, Waldo A.,
Alaska,
Albany,
Atlanta,
Argonaut,
Boyce. Mary H.,
Boscobel,
Baldwin, S. C.,
Buffalo,
Boston,
Bieleman, C. F.,
City of Duluth,
City of Rome,
Caledonia,
City of Ludington,
City of Racine,
Cayuga,
City of Fremont,
City of Naples,
Chemung,
Clarion,
Conemaugh,
Conestoga,
Chicago (Goodrich Line),
Chicago (West'n Tr. Co.),
City of Traverse,
City of Paris,
Codorus,
Donaldson, Jas. P.,
Eddy, John F.,
Egan, W. M.,
Eddy, C. A.,
Fayette,
Foster, Parks,
Florida,
Flower, R. P.,
Gilcher W. H.,
Gogebic,
Grecian,
Gladstone,
Grover, M. B.,
Gilchrist, J. C.,
Harlem,
Helena,
Haskell, W. J.,
Hall, John E.,
Hudson,
Hurd, Jos. L.,
Italia,
Indiana,
Ionia,
Juniata,
James, H. R.,
Jewett, H. J.,
Langdon, Jas. R.,
Lackawanna,
Louisianna,
Lehigh,
Lycoming,
Lawrence,
Manola,
Maruba,
McVittie, A.,
Masaba,
Maryland,
Marina,
Mather, Sam'l (whaleb'k)
Maytham, Thos.,
Manchester,
Merrimac,
Minnesota,
Manhattan,
Massachusetts,
Marshall, Sam'l,
Mills, Rob't,
Milwaukee,
Mahoning,
Neosho,
New York,
Northern King,
North Wind,
Owen, J. Emory,
Owego,
Owen, Ira H.,
Onoko,
Portage,
Palmer, Thos. W.,
Packer, R. A.,
Petoskey,
Peerless,
Parnell, C. S.,
Philadelphia,
Prince, F. H.,
Perrett, J. C,
Pathfinder (whaleback),
Panther,
Pillsbury (engines),
Pontiac,
Rochester,
Rosedale,
Rugee, John,
Russia,
Smith, Gov.,
Saranac,
Syracuse,
Susquehanna,
Seneca,
Sachem,
Smith, Ed.,
Schuyikill,
St. Lawrence, (do engines)
Scranton,
Sheboygan,
Shaw, John (schooner),
Tilley, Sir S. L.,
Tacoma,
Tuscarora,
Thomson, A.D, (whaleb'k)
Tioga,
Uganda (engines),
Viking,
Virginia,
Vance, F. L.,
Wheeler, F. W.,
Wyoming,
Williams, George F.,
Wisconsin,
Wissahickon,
Wilbur, E. P,
Westcott, J. W.,
Washburn,

In the year 1492 Columbus crossed the Atlantic with a 50-tonner, a 40-tonner and a 100-tonner. In the year 1892 we are preparing to cross with a 12,000-tonner, the White Star liner Campania.

ST. MARY'S RIVER CHARTS NOS. 1 AND 2 FROM POINT IROQUOIS TO E. NEEBISH AND FROM MUD LAKE ENTRANCE TO E. NEEBISH, CORRECTED TO AUG. 30, 1892, CAN BE HAD AT THE OFFICE OF THE MARINE REVIEW, 516 PERRY-PAYNE BUILDING, CLEVELAND, FOR 20 CENTS EACH, OR BOTH BY MAIL FOR 50 CENTS. BOTH CHARTS WILL BE FURNISHED WITH CLOTH BACKS AND BOUND EDGES FOR $1.

Iron Mining.

VALUE OF LEADING STOCKS.

Quoted by Chas. H. Potter & Co., No. 104 Superior St. Cleveland, O.

Stocks.	Par Value.	Bid.	Asked.
Cleveland-Cliffs Iron Company	$100 00	$.....	$ 60 00
Champion Iron Company	25 00	.....	45 00
Chandler Iron Company	25 00	.....	44 00
Jackson Iron Company	25 00	.....	.....
Lake Superior Iron Company	25 00	.....	39 00
Minnesota Iron Company	100 00	68 00	70 00
Pittsburgh & Lake Angeline Iron Co.	25 00	.....	145 00
Republic Iron Company	25 00	9 00	10 00
Ashland	25 00	.....	.....
Section Thirty-three	25 00	.....	4 00
Brotherton	25 00	2 00	2 50
Iron Belt	25 00	.....	2 10
Aurora	25 00	.....	10 00

Stockholders of the Repnblic Iron Company have received notice of a meeting to be held on Dec 15, when an important question regarding future operations of the company will be considered. It is well known that Republic stock, which was at one time the most popular of Lake Superior mining stocks, has of late declined in price to a figure which represents little more than the actual value of the assets of the company in vessels, land, machinery, etc. This reduction is due partly to the general decline in stocks of the old mining companies, as a result of new mines coming into the market, but the main cause in the decline is the falling off in the output of the mine. The Republic directors now propose to acquire, by lease or otherwise, control of new mining property on the Mesaba range to which a part of the equipment of the old mine can be transferred and from which the company's vessels can derive steady employment. The meeting is called for the purpose of taking action on this question. Many of the stockholders are of the opinion that the directors have already made arrangements for carrying out their plans of beginning operations on the Mesaba next year, and in any event it is more than probable that the proposition will meet with general approval. The directors refuse to sell any of the wooden vessels owned by the company,and although there is very probably money enough in the treasury to make something of a division of profits, no dividend is talked of. This would also indicate that the directors intend to begin work on the Mesaba with resources that will warrant active operations. There is little of interest regarding other leading mining companies. Minnesota stock fell off a little in New York as a result of the presidential election and would seem cheap at the present price. The Lake Superior Company has spent $100,000 in improvements at the mines and this year the surplus ore in stock piles represents about $700,000 or more. At the Champion, which has shipped very little ore this season, only 90 men are employed.

A correspondent in the Engineering & Mining Journal of New York complains of the position taken by the old mining companies of that range relative to development. He says: "There is no doubt at all but under a liberal policy which would enable outside capitalists to gain a footing, the Marquette range could be made to produce much larger quantities of iron ore. Until a year ago the Lake Superior Iron Company had mined only upon one forty acre tract, the Clevelrnd Iron Company only upon an eighty and the Iron-Cliffs Company only upon three forties. The large land holding estates of some of these iron companies retard the development of the mining industry. The Cleveland-Cliffs Company holds options of large areas of land, stipulating that the managing director will have the entire control of marketing the ore that may be mined, so that at any time he can suppress interferance from any one who may be fortunate enough to find a mine and try to work it upon any of this land. This company holds about 100,000 acres of the cream of the range. The Lake Superior Iron Company, also large real estate owners, give no options in the strict sense of the term. They simply allow one to explore at his own expense and if he finds anything of value and the superintendent thinks proper, the company may develop the property, giving the discoverer a certain amount per ton, mined and sold, for a certain period, amounting altogether to $10,000. It is owing to this that this range is developing slowly, and thus it is that other valuable ranges are opening up."

Arrangements are being made to move the equipment of the Sheriden mine, Menominee range, to the Mesaba range, where C. E. Shannon and others will soon commence explorations. The Sheriden shipped only 6,600 tons of ore last season and has never amounted to a great deal as a mine. It is still thought that the American and East New York of the Marquette range, which have both been closed, may be wrought again next spring. Pumps and other fixtures are being raised to the surface at the Saginaw mine, another of the Marquette range properties, and the mine will now, no doubt, be permanently abandoned.

Two mining leases covering small tracts of land on the Mesaba were recently entered into between the Elmira Land and Iron Company and Duncan McKinley, the latter agreeing to pay a royalty of 30 cents a ton and mine 10,000 tons the first year and 25,000 tons every year thereafter during the term of lease.

Shipments of iron ore from Two Harbors up to and including Wednesday, Nov. 16, aggregated 1,134,674 gross tons, of which 642,590 tons were from the Chandler, 474,616 tons from the Minnesota, 2,525 tons from the Pioneer and 14,843 tons from the Zenith mine.

The Minnesota Iron Company is pushing development work at the Canton, a Mesaba range property from which it is expected some ore will be shipped early next season.

In General.

Commercial organizations in all parts of the country are being urged to send delegates to the Nicaragua convention, to be held in New Orleans on the 30th inst. This gathering is called in accordance with the resolution passed by the St. Louis convention held June 2, to further consider the question of the immediate construction of the canal under the protection and control of the United States in the interests of commerce and the republics of the western hemisphere.

On her maiden Atlantic and Pacific voyage the big yankee sailing ship Susquehanna, made the triangular passage from New York to San Francisco, San Francisco to Liverpool and Liverpool to Sandy Hook, a total of 39,000 miles in 270 running days, an average of 144½ miles per day. The trip to San Francisco was made in 140 days, that to Liverpool in 92 days and that from the Mersey to New York in 38 days. The Susquehanna earned $57,000 freight money on the triangular voyage.

The substitution of triple expansion engines in lieu of compound engines in the Morgan Line (New York) steamers has resulted in great economy. The change has effected a gain on each ship of 400 tons carrying capacity, while the coal consumption has been reduced from twenty-eight tons per day to sixteen tons, and on some occasions as low as fourteen tons. The speed of each ship has been increased from one-half to three-quarters of a knot. The change of engines was made under the superintendence of Horace See of New York.—The Engineer, New York.

Publications.

"The Highways and Byways of Our Lakes" is the title of an interesting article by Edward Frost Watrous in the New York Independent of the 10th inst.

An article from Prince Bismarck on the World's Columbian Exposition appears in the November issue of the Illustrated World's Fair of Chicago.

The Railroad Gazette, New York, has begun publication of a series of articles relative to "Ships and Ship Building on the Great Lakes." It is a review of a great deal of statistical matter printed recently in various forms.

We are indebted to the Tower Publishing Company, 91 Minories, Tower Hill, London, for a copy of "Triple Expansion Engines and Boilers," by A. Ritchie Leask, marine engineer. This work is intended to supply engineers with practical information regarding the latest type of triple and quadruple expansion engines and boilers and their management. It is written in a plain and unpretentious style, and embodies the recent experiences of those who have sailed with such engines and boilers. It is sold in New York by E. & F. N. Spon, No. 12 Cortland street.

Record of Speed and Big Cargoes.

[*Masters or owners of freight boats are invited to report improvements on this list.*]

Iron ore: Maritana, Minnesota Steamship Company of Cleveland, 4,260 gross, or 4,771 net tons, Escanaba to South Chicago; Maryland, Inter-Ocean Transportation Company of Milwaukee, 3,663 gross, or 4,103 net tons, Escanaba to South Chicago, draft 17 feet 4 inches.

Grain: E. C. Pope, Eddy Bros. of Bay City, 125,730 bushels of corn, Chicago to Buffalo; same steamer, 120,191 bushels of wheat, Chicago to Buffalo; Onoko, Minch estate, Cleveland, 113,839 bushels of wheat, Chicago to Buffalo; W. H. Gilcher, J. C. Gilchrist of Cleveland, 113,820 bushels of wheat, Chicago to Buffalo.

Coal: E. C. Pope, Eddy Bros. of Bay City, 3,950 net tons anthracite, Buffalo to Chicago.

Speed: Owego, Union Line of Buffalo, Buffalo to Chicago, 889 miles, 54 hours and 16 minutes, 16.4 miles an hour.

Sound Criticism of the Conemaugh-New York Decision.

EDITOR MARINE REVIEW:—Considering the wide interest attached to your publication of the Conemaugh-New York collision case, it seems worth while to question the conclusion drawn in the latter part of your editorial, notwithstanding it was what Judge Swan had in mind when he "reluctantly" divided the damages, after stating that the navigation of the New York was recklessly negligent. You say it will have a beneficial effect on masters who have vessel property in their charge. Had the New York been held solely at fault, or even held to be nine-tenths in fault and been assessed that part of the damages, I can readily understand how it would be beneficial to captains of lake vessels. But after a master has faithfully complied with the rules of navigation and taken every precaution except that of stopping and backing, which seemed hardly necessary unless he came to the conclusion that the New York's crew had jumped overboard, and that she was running wild, it is certainly strange doctrine that for all judicious action he is adjudged just the same as if he had blown no whistles. The judge even acknowledges that a collision was almost inevitable; that if the Conemaugh had stopped and backed it was questionable if she would not have struck the New York. In a recent decision of Judge Swan's it is suggested that a premium should not be paid to carelessness. In seems that the Conemaugh did everything except that of stopping and backing, and that the New York did nothing to avoid and everything to cause the collision, yet each is held equally responsible. Is not the division of damages in this case an incentive to captains in a tight place to let their boats go ahead full speed?

Does it not also commend the carelessness of the captain of the New York? Is it not a fact that the division of damages is a matter of custom? Judging from the decision, Judge Swan thinks the New York contributed nine-tenths of the cause of the collision. Why not consider this and assess the other ten per cent. to the Conemaugh? Because the first case ever decided was one where vessels were equally careless in contributing to a collision and were equally assessed, does it follow that in cases where the responsibility is very unequal they should be assessed the same? In all other suits for damages the scales of justice are graduated to ounces and drachms, but in affairs of admiralty there is nothing but pound and half pound marks.

If this decision holds, the man almost entirely at fault will refuse to settle in arbitration methods far less than a division of damages, for he can go to court and obtain that decree.

Considering the able apology (so able that it makes wrong seem almost right) that accompanies the decision, it is somewhat presumptious for an ignorant captain to question the decision, but I think you will find that careful masters will be disheartened and careless ones put at ease by it.

M. A. RINER.

An Able Article on the Question of a Seaboard Outlet.

Prof. Louis M. Haupt of Philadelphia, in a letter recently written on the subject of Canadion canal tolls and the retalitory measures adopted by the United States government at the St. Mary's Falls canal, says that for over twenty years the policy of the Canadian government to secure the trade of the northwest has been avowed and sedulously pursued, and that in a few years more it will be consummated. Then the American people will realize what it is to have a waterway capable of carrying ocean vessels through Canadian territory from Liverpool to Duluth or Port Arthur, on Lake Superior, 4,618 miles, of which only 71 miles will be through artificial channels, while to reach the same point via United States ports would require several transshipments, with transit through the contracted Erie canal of only 7 feet draft and 352 miles length, at the low speed of about 2 miles per hour. "As a matter of fact," says Prof. Haupt, "the actual average cost of transportation on the lakes is but 1.1 mills per ton mile, while on the Erie canal it is double this figure, and on the railroads it is 9.19 mills, or almost nine times as much. With the Canadian waterway enlarged to a depth of 14 feet there is no possibility of the Erie canal or the railroads of the United States retaining this foreign traffic, and yet the result is what the far-sighted policy of Canada has striven for during the past score of years. The completion of the Canadian Sault canal, and the enlargement of the remaining links of the St. Lawrence system, which, it is expected, will occupy only two years longer, will give the Canadians absolute possession of the key to the traffic of the great lakes, and the railroads, as well as many other interests of the United States, will then realize what they have lost. To build this system has cost Canada over fifty-four millions of dollars, while to compete with it, by an extension of the proposed American '20-foot' lake system to tide water, via Lake Ontario and a canal around Niagara Falls, on American soil, and the enlargement of the Erie canal from Oswego to the Hudson, and thence to New York, is estimated to cost probably three times that amount. To the American traffic this would be worth all it would cost, but it will be many years before it can be accomplished; and in the meantime it will be found that the channels of commerce have been severely disturbed—some of them permanently diverted."

Mr. Haupt points out also that the strategic transportation lines lie on the Canadian side of the international border, and that it would certainly seem good policy, as well as wise statecraft, if the antagonistic interests could be merged under one management by annexation, treaty or otherwise, and that retaliation will not remedy the difficulty. Yet it is hardly to be expected that the American people would consent to be taxed to complete and maintain a system of waterways on the Canadian side of the boundary, which would inevitably cripple their own commerce and its allied industries. He says: "The abnormal development of our railways seems to have concentrated public attention to that method of transportation as being all-important and most economical, whereas it is an undoubted fact that there is no known method as cheap as that by water. Instead of the lake commerce being competitive with rail, it has actually developed an enormous business for the latter system which would have no existence but for the very low rates made possible by the magnificent flotilla on our lakes; boats of 3,000 to 6,000 tons on 16 feet draft, with speed of 15 and 16 knots an hour, and charges in some instances as low as ⅙ of a mill per ton-mile. The best paying railroads are those which are 'competing' in this traffic. Shall this commerce go out through, and pay tribute to foreign ports? We trow not, and there is no time to be lost."

Stocks of Grain.

The following table prepared from the Chicago Board of Trade report of the visible supply of grain on Saturday, the 19th inst., shows with comparisons stocks of wheat and corn in store at points of accumulation important to the lake traffic:

	WHEAT, BUSHELS.		CORN, BUSHELS.	
	Nov. 19, '92.	Nov. 12, '92.	Nov. 19, '92.	Nov. 12, '92.
Chicago.....	9,983,000	10,326,000	6,266,000	6,840,000
Duluth.....	7,897,000	7,276,000	.....	.....
Milwaukee.....	2,006,000	1,859,000	9,000	9,000
Detroit.....	1,146,000	1,196,000	54,000	37,000
Toledo	3,541,000	3,542,000	193,000	233,000
Buffalo.....	3,570,000	3,577,000	530,000	794,000
New York.....	5,581,000	15,288,000	1,138,000	1,370,000
Baltimore.....	2,302,000	2,253,000	255,000	319,000
Philadelphia...	1,990,000	1,986,000	333,000	271,000
Boston.....	247,000	236,000	383,000	430,000
Montreal.....	427,000	449,000	15,000	17,000

The statement shows that at five lake shipping ports, Chicago, Duluth, Milwaukee, Detroit and Toledo, there is a net increase for the week of 374,000 bushels of wheat and a decrease in corn of 597,000 bushels, while at Buffalo and the five principal exporting ports on the seaboard, New York, Baltimore, Philadelphia, Boston and Montreal, there is a net increase in wheat of 328,000 bushels and a decrease in corn of 537,000 bushels.

Lake Michigan Lights.

It is understood that the light-house board is now disposed to favor a light and fog signal at Point aux Barques, Lake Michigan, to fill out the gap between Seul Choix and Poverty island. With a recommendation from the board it is very probable that the light can be secured during the coming session of congress, and its establishment next season will be welcomed by vessel masters running to Lake Michigan.

The district officers in charge of Lake Michigan are now trying to make the proposed change in Pilot island light this fall. The change will make this light a flashing white light every fifteen seconds, and not a fixed white varied by flashes every fifteen seconds.

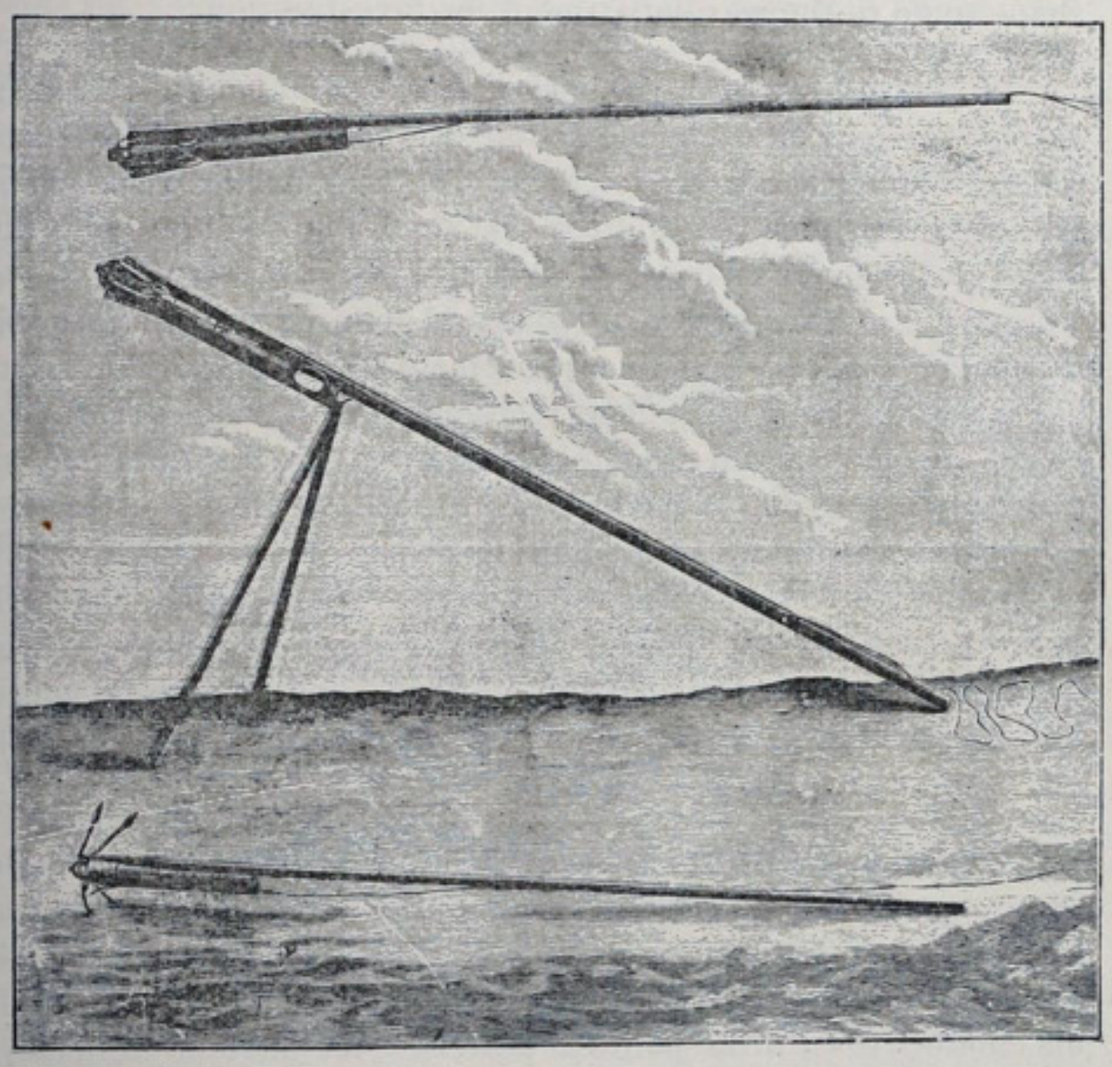
Commander Ludlow is about to leave Chicago for the Straits and will begin lifting buoys about Dec. 7, unless the ice forming necessitates doing so earlier.

Official Numbers and Tonnage.

The bureau of navigation, E. C. O'Brien commissioner, assigned official numbers to the following lake vessels during the week ending Saturday, Nov. 19: Sail—Rose Etta, built at Arthur Bay, Mich., and enrolled at Marquette, Mich., 11.54 tons gross, 10.97 net, No, 111,007. Unrigged—Charles E. Conrad, built at Northumberland, N. Y., and hailing from Buffalo, 134.89 tons gross, 128.15 net, No. 34,223; Rhoda & Charlie, built at Northumberland, N. Y., and enrolled at Buffalo, 134.89 tons gross, 128.15 net, No. 56,606; David G. Crosby, built in Tonawanda, N. Y., and owned in Buffalo, 126.80 tons gross, 121.00 net, No. 35,518.

Life-Saving Rocket Grapnel.

Several months ago, when the steamship Eider of the North German Lloyd's was stranded, the efforts to save her were more or less nullified by the lack of proper appliances for establishing communication between ship and shore. This apparent lack of invention induced the proprietors of the London Daily Graphic to offer a prize of $500 to the inventor of the best means of communication between a stranded ship and the shore or a boat. The responses to this offer were surprising. About 2,200 projects were sent in, all but 100 of which were from Great Britain. The work of deciding to whom the prize should be awarded was intrusted to a board of judges, consisting of Rear Admiral Seymour, C. B., Capt. Vyvyan, R.N.R., Elder Brother of the Trinity House, and Capt. Wyatt. The devices submitted formed a wonderful collection of contrivances, embracing buoys, various forms of propelled boats, kites, baloons, guns, rockets, mortars, rafts, trained dogs and birds to carry lines, cranes, bridges, life boats, parachutes, harpoons, anchors, oil spreaders, aerial machines, electrical appliances, etc. The judges, after long and careful consideration, finally decided to award the prize to Messrs. Thompson and Noble of Southampton for their rocket grapnel and line, of which we herewith present an engraving.



LIFE SAVING ROCKET GRAPNEL.
Scientific American.

In their report the judges say of this device. "This is a grapnel that can be readily and quickly fitted on the life saving rocket adopted by the Board of Trade. The grapnel has arms fitted to it which keep shut closely to its sides during the flight of the rocket, but which, on its touching the ground, open out, and, when the line attached to the rocket is hauled on, grip the earth, and so secure the line to the shore. This invention provides for the use of either a single line or of a block and double line rove through it, according to distance and circumstances. We do not think finality is yet nearly reached, and we believe that a rocket and grapnel, both lighter and more satitfactory, would be evolved in the course of properly conducted experiments. We think that the Board of Trade rocket line is capable of reduction both in size and weight; thereby adding to the length of range, without too much reducing the required strength. Before concluding our report, we desire, in the interests of seamen generally, to record our opinion that circumstances often arise when a light shoulder line-throwing gun would be invaluable, and often be the means of saving life by rapidly taking a line to a man overboard, or to a boat adrift and in distress, also for communication between two ships at sea in bad weather. By such means one vessel might take another in tow without lowering a boat, or might be enabled to save lives from a sinking ship, when a boat could hardly live."

Coal Supplies Will Again be Short of the Demand.

Mr. G. G. Hadley of Toledo, who is one of the leading operators in the Hocking Valley coal district of Ohio, is of the opinion that the movement of soft coal by lake to the northwest next season will be very large. Shipments since July of this season would have been much larger than they have been but for the shortage of dock space at upper lake ports. It is well known that lake shippers of soft coal are now closing up their business for the season with orders unfilled in numerous cases. As the coal began to move from upper lake ports with the arrival grain cars during the past few weeks, the shippers at Lake Erie ports were confronted with the usual fall difficulty, a shortage of cars in Ohio and Pennsylvania.

"This evil of dock shortage," says Mr. Hadley, "will be remedied before the season of 1893 opens. At Duluth and West Superior several thousand feet of new coal docks will be built this winter,and at some of the Ohio ports the dockage will also be increased. The coal trade of next season will be the greatest in the history of this country. All that the railroads can possibly do is to furnish enough coal this winter to supply the actual demands. Upper lake docks will be left bare when spring opens and the whole northwest will be left without a pound of surplus coal. This means that the mines, railroads and vessels must supply the quantity required, and I look for a most active season in 1893."

Changes of a Few Years.

In marine engineering practice fifty years ago engines were built to work with steam at four pounds above the atmospheric pressure. Thirty-six years later a pressure of sixty pounds was quite common in the compound type of engines, while with the triple expansion engine of to-day the steam pressure has risen to 160 pounds, and even still higher pressures have been adopted in quadruple expansion engines, a type which has not, however, come into very general use as yet. In connection with these facts, Industries, a London publication, notes that one firm in Great Britain, Denny & Co. of Dumbarton, have fitted twenty-seven new steamers with quadruple-expansion engines, and have converted seventeen others from the compound to quadruple-expansion type on Mr. Walter Brock's principle. It is thus evident that economy of the triple-expansion engine is soon to be exceeded even in the largest steamers by further progress in marine engineering.

Not a Very Powerful Combination.

Local insurance agents at Chicago, who are also vessel brokers in most cases, are said to be grumbling about the new cargo insurance company, known as the Chicago Marine, depriving them of their commissions, from the fact that grain shippers, who are stockholders in the new company, turn over their business direct. It would seem as though the Chicago company is getting an unusual amount of free advertising for its size. Lines of cargo insurance to be carried by a company with a capital of only $100,000 will certainly not be large enough to cut much of a figure in the great volume of business done on the lakes each season.

Holland Steamboat Company is the name of the corporation for which Rogers & Bird of Saugatuck, Mich., will build the small wooden passenger boat referred to last week. Leading stockholders reside in Holland, Mich. The boat, which is to cost about $35,000, will be 140 feet keel, 29 feet beam and 10 feet hold, and will have an engine 24x28 inches,with independent candenser, the machinery and boiler to be built by Wilson & Hendrie of Montague, Mich.

MARINE REVIEW.

DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

JOHN M. MULROONEY, ... } PROPRIETORS.
F. M. BARTON, ... }
HOMER J. CARR, . . . Associate Editor and Manager Chicago Office, Western Union Building, 110 LaSalle Street.

Published every Thursday at No. 516 Perry-Payne Building, Cleveland, O.

The books of the United States treasury department contain the names of 3,600 vessels, measuring 1,154,870.38 tons in the lake trade. In classification of this fleet the lakes have more steamboats of 1,000 to 2,500 tons than the combined ownership of this class of vessels in all other sections of the country. The number of vessels of 1,000 to 2,500 tons on the lakes on June 30, 1891, was 310 and their aggregate gross tonnage 512,787.58; in all other parts of the country the number of this class of vessels was, on the same date, 213 and their gross tonnage 319,750.84. The classification of the entire lake fleet is as follows:

Class.	Number.	Tonnage.
Steam vessels	1,592	756,751.53
Sailing vessels	1,243	325,131.06
Canal boats	703	72,515.42
Barges	62	20,472.37
Total	3,600	1,154,870.38

Tonnage built on the lakes during the past five years, according to the reports of the United States commissioner of navigation, is as follows:

	No. of boats.	Net Tonnage.
1887	152	56,488.32
1888	222	101,102.87
1889	225	107,080.30
1890	218	108,515.00
1891	204	111,856.45
Total	1,021	485,042.94

St. Mary's Falls and Suez canal traffic: Number of boats through St. Mary's Falls canal in 1890, 228 days of navigation, 10,557; tonnage, net registered, 8,454,435. Number of boats through Suez canal during 1890, full year, 3,389; tonnage, net registered, 6,890,014. Number of boats through St. Mary's Falls canal in 1891, 225 days of navigation, 10,191; tonnage, net registered, 8,400,685. Number of boats through Suez canal during 1891, full year, 4,207; tonnage, net registered, 8,698,777.

Entered at Cleveland Post Office as Second-class Mail Matter.

AT A MEETING of the Duluth Chamber of commerce a few days ago, a committee, of which Secretary Thompson is a member, was appointed to consider the advisability of holding in the near future a convention to take dicisive action on a deep water outlet from the lakes to the seaboard- We earnestly hope that the committee will recommend a postponement of such action on the part Duluth's commercial organization. The time is not ripe for another waterways convention. Too many of such conventions are not wanted, and Duluth would not be supported by other lake cities in another movement of this kind following so close after the great gathering in Detroit, which resulted in the adoption of a 20-foot channel for the entire chain of lakes. The northwestern interests in the Detroit convention were there for the furtherance of the proposed great seaboard outlet as well as the 20-foot channel. They gained a victory over the railway interests of Buffalo in securing in the memorial adopted by the convention a clause calling for a survey on the seaboard canal project. No appropriation was secured for the survey, and now it is evident that these northwestern interests are growing restless. They will make a mistake, however, if they renew their demands too soon. Another convention without cooperation from lower lake cities would injure rather than help the cause. The endorsement given the seaboard canal project by the Detroit convention should be enough to secure the passage in the next congress of the bill for a preliminary survey, if the matter is rightly pushed. In due time the convention which Mr. Thompson and his associates now seem to advocate a little hastily will be held, and a united lake marine (barring the railway interests of Buffalo) will join with the people of the northwest in enforcing consideration of this greatest of all canal projects.

SECRETARY FOSTER still allows the case of Col. Ludlow and Commander Heyerman to rest, and the vessel owners of the lakes who have entered unanimous and emphatic protest against the grave injustice done these officers can not quite make out whether or not he has committed himself to one side or the other. The only reference to the case in Washington recently is the so-called report of Professor T. C. Mendenhall, superintendent of the coast and geodetic survey. Professor Mendenhall is one of the civilian members of the board who has lost all sight of the judicial relations of members to the case and has turned his fortunes with the executive officers. The so-called report to the secretary is nothing more than extracts from a similar document submitted at the meeting of Sept. 5 last by Members Greer, Coffin and Mahan, who have all along been acting as prosecutors and judges in the matter. The headlines of this report are, as one who has taken great interest in the case puts it, very ferocious, but the substance, as the darkeys would say, powerful weak. To say the least, Professor Mendenhall shows malice and personal hostility quite unbecoming the conduct of all controversy relating to the case. He substitutes assertion for argument and personal vituperation for calm discussion. Now that Secretary Foster has acted in such a strange manner regarding the important questions involved in the removal of these officers from the light-house service, it is not probable that any further action will be taken by the vessel owners for the present. As far as Col. Ludlow is concerned the matter is in very wholesome shape to go to the war department for investigation.

NOTWITHSTANDING the active part taken by the MARINE REVIEW in opposition to the action of the executive officers of the light-house board in the case of Col. Ludlow and Commander Heyerman, it must be admitted that in all our dealings with the board Commander George W. Coffin, during his term as naval secretary, has been most courteous and obliging, and we wish him more agreeable service and advancement in the navy. The light-house service bears very close relations to the business of lake vessel owners, and it was evident from the beginning of the trouble growing out of the lighting of the St. Mary's river that Commander Coffin was for some unknown reason unfavorably disposed towards lake shipping interests. Then, too, he had tried to do the work of the district officers instead of holding them responsible for how the districts are run, and it is to be hoped that the new naval secretary, Commander Robley D. Evans, will not fall into this error.

GENERAL DUMONT of the steamboat inspection service recommends a non-partsan personnel for the service below the grade of supervising inspector. The general is himself a good deal of a political acrobat but at the same time very shrewd in his conduct toward the political powers. We have no hesitancy, however, in accepting this recommendation as intended entirely for the betterment of the service, and feel sure that as a starter it will receive the endorsement of owners of steam vessels on the lakes. If the party about to take control of the government means to deal with the merchant marine of the country along lines suggested by the International Marine Conference, which was brought about under a similar administration, it will remove politics from all departments of the steamboat inspection service.

RATHER than pass another season without reciprocity in wrecking on the lakes, vessel owners should urge the present administration to concede to Canada control of wrecking matters in the Welland and other canals of the dominion, which it was thought would be covered by the term "waters contiguous to the United States." United States interests have little or no use for wrecking privileges in the Canadian canals, and the humane feature of this wrecking question, which is most important, does not apply to canals. It is a matter of no credit to the executive officers of either government that the legislators should agree upon a measure for the protection of life and property, and then find its enforcement delayed through a dog-in-the-manger policy that is at the same time extremely trivial.

The Detroit Dry Dock Company has the exclusive agency for the equipment of boilers on the lakes with Howden's forced draft system.

C. Endress & Sons of Whitefish point, Lake Superior, have sold the steamer City of Green Bay to Capt. L. B. Coates and the A. Booth Packing Company of Chicago.

Captains Frank Hackett and John McCormick of Amherstburg have purchased the steamer Energy of Wallaceburg. She will be fitted up as a wrecker, with a steam pump and steam hoist aboard, and will be stationed at Pelee island.

It has been decided to build an addition of 700 feet to the new Allouez ore docks of Superior this winter. Some changes will have to be made in the part already built, as it has been found that the pockets do not discharge the soft Mesaba ore freely.

Col. Jared A. Smith, government engineer in charge of the Cleveland district, has succeeded in causing the removal of the bar at the entrance to Cleveland harbor,and now it is annonnced that dredging has also been pushed at Lorain,another port within the district, making the channel 140 feet wide and 17 feet deep.

The Conneaut Terminal Railway Company, controlling the new ore and coal docks at Conneaut, Lake Erie, was incorporated a few days ago. The capital is fixed at $1,600,000, and the incorporators are Samuel B. Dick and A. C. Heidekoper of Meadville, Pa., Allen W. Cox of Cincinnati, Thomas M. Weller of Youngstown, O., and F. E. Rittman of Cleveland.

The Roberts Safety Water Tube Boiler Company of Red Bank, N. J., and No. 18 Cortland street, New York, closed its fiscal year Nov. 1, and paid the usual dividend. This company has built 484 boilers to date,all of which are reported to be giving excellent satisfaction. The growth of the concern seems to prove that there is merit in the boilers which they manufacture.

Personal Mention.

Capt. S. S. Curry, president of the company controlling the Norrie Mine, was in Cleveland during the week.

Major Clinton B. Sears is the government engineer who has succeeded Capt. W. L. Fisk in charge of the Duluth district.

C. W. Wetmore of the American Steel Barge Company and Capt. T. Johnston of London, Eng., who is at the head of the company recently formed to build whalebacks in Great Britain, were at Superior recently in consultation with the officers of the barge works.

Hon. S. M. Stephenson of Menominee, Mich., who was a most valuable worker in the last congress for all measures favorable to lake interests, is among the Republicans elected for another term. Mr. George W. Houk, one of the valuable members of the commerce committee in the present congress, has also been re-elected, but Senator Sawyer of Wisconsin, who is a member of the Marinette lumber corporation known as the Sawyer-Goodman Company, and who has always been of great assistance in securing appropriations for river and harbor work, must vacatə his senatorial chair. W. S. Linton, treasurer of the Linton Manufacturing Company of Saginaw and at present mayor of the city, succeeds Hon. Henry L. Youmans from the Saginaw district. Mr. Linton is a young man and can be relied upon to give support to legistation favorable to lake commerce.

To Stand Aloof from Politics.

In his annual report, just issued, James A. Dumont, supervising inspector-general of the steamboat inspection service, says:

"Another needed amendment, now for the first time officially suggested, in the interest of preserving the purity of the service and to insure its efficiency in the future, is to make the service in its personnel below the office of supervising inspector wholly non-partisan, so that neither local nor assistant inspectors shall be removable except for incompetency, inefficiency, or misconduct, and for these causes only after charges duly proven before a committee of three supervising inspectors, to be appointed by the supervising inspector general with the approval of the secretary of the treasury, it being further provided that the supervising inspector of the district wherein the accused officer resides shall not be elegible to serve on such committee.

"The reason for advising this change is that, as the law now is, whenever there is a change in the administration, no matter whether a change in its politics or not, the importunities for changes in the personnel of the service are well nigh irresistible, and the worst feature of such a condition of affairs is that, as a rule, the applicants commanding the influence to secure a removal of a competent officer are, in nine cases out of ten, incompetent to perform the duties of the officer whose removal they have procured. The fact that such incompetents scarcely ever succeed in reaping the coveted reward of their labors serves but to increase the perplexities of the appointing power, besides having a demoralizing effect on the service, in this: that the removed officer, when removed for political reasons only, is dismissed subject to the appointment and qualification of his successor. The result of this is retention in office, till a suitable successor can be found, of an officer who naturally must be indifferent to the best interests of the service. Another and most serious evil results from removals from the inspection service for partisan reasons, and that is in creating a prejudice in the minds of really competent persons from seeking employment in the service, the result being that, in several cases now existing, officers who have been under the ban of removal from one to nearly seven years are still performing duty, because in their localities, competent persons will not accept their positions, preferring less pay in some cases in private employment, because of its more certain tenure.

"Neither of the great political parties is more responsible for this unique condition of affairs than the other, for, in the cases referred to, two are of officers (republicans) removed when Mr. Cleveland was president and one is a democrat removed nearly two years ago under the present administration. When the fact is taken into consideration, that upon the ability and fidelity of the officers of the inspection service depend the lives of the millions of persons traveling on steam vessels and that officers so retained have ceased by the department's own action to be subject to the department's discipline, the extreme of such discipline having already being meted out to them, it does seem that no further argument is needed to convince any one that the public interests would be better secured were the officers of the steamboat inspection service as secure in their tenure of office, during good behavior, as are the clerks in the executive departments under the civil-service rules, the worst results of whose misconduct, if any occurs, is remidiable, whereas a life lost through the misconduct of a faithless or incompetent inspector of steam-vessels is irrepareable."

Michigan Lumbermen in the Georgian Bay District.

Only a short time ago vessel owners who followed the transportation of lumber were told that with a decline in the product of mills in in the Saginaw valley, and the great inroads which the railways were making in the business of that district, there would be no business for the lake barges to engage in. The present season, more than any other for three or four years past, has proven that this claim resulted from a narrow view of the future of the great lumber districts in Georgian bay (Canada) and at the head of Lake Superior. It is the universal verdict that the season just closing has been one of the best seasons the lumber trade of the Saginaw valley and eastern Michigan has yet experienced. The movement of lumber has been satisfactory and fair prices have been realized. Everything available has been disposed of, and not in a score of years has the cleaning up process of odds and ends been so thorough.

James Moiles of Saginaw, who is interested in this Georgian bay business, is quoted by the Northwestern Lumberman as estimating the product of fourteen Michigan firms operating in the Georgian bay district this winter at 368,000,000 feet. He divides this estimate among the different operators as follows: Saginaw Lumber & Lath Co., on Spanish river, 20,000,000 feet; Sibley & Bearinger,15,000,000; Spanish River Lumber Company, for Folsom & Arnold, Bay City, 27,000,000; Nelson of Cheboygan, 8,000,000; Pack, Woods & Co., 15,000,000; E. Hall, Detroit, for Bay City, 16,000.000; F. W. Gilchrist, Alpena, on the Mississauga, 80,000,000; Howry & Sons, Saginaw, 25,000,000; Emery Lumber Company, French and Wahnapitae rivers, 50,000,000; Hurst & Fisher, 50,000,000; Eddy Bros., Bay City, 20,000,000; Alger, Bliss & Company, Saginaw, 25,000,000; Moore Lumber Company, 10,000,000; William Peter, 17,000,000.

CHICAGO LAKE INTERESTS.

WESTERN OFFICE, MARINE REVIEW,
No. 13 Western Union Building, CHICAGO, Ill., Nov. 24.

By the time the REVIEW issues its Thanksgiving number, grain freights for the season will be at end here, with the exception of a few straggling loads. The close has been very unsatisfactory. For days the markets have been out of line for the movement of grain, and legitimate shippers were unable to make sales of corn in the east. The corn clique has had a few cargoes to go forward, but it has not cared much about shipping at all, and the drop in rates was the only alternative left vessel agents. The winter will come on with an enormous stock of grain in Chicago elevators, and with every indication that stocks will increase steadily. Boats for storage will most likely be in good demand early in the winter, and good rates ought to be obtained.

Work in placing a tubular boiler in the Dunham tug Mollie Spencer will be commenced as soon as navigation closes. The boiler will have 200 pounds of steam, and the tug will,with her compound engines, become one of the most powerful boats on the river. The changes will cost more than the Spencer is now worth. Capt. Dunham has put in an electric light plant in his repair shop at the foot of North Market street, and is going in for a thorough overhauling of all his boats the coming winter.

The loss of the Newburg is one of those things which make the underwriters tired. Coming immediately after a long line of heavy losses, the Newburg wreck was a kind of cap-sheaf, so to speak, of gloom.

There are many tug captains who would like to command the new revenue cutter Calumet, now under construction at Buffalo for harbor service here. Most likely Collector Clark will serve out his term, which will not end until February, 1894, and will consequently have the say as to the appointment. Following the precedent of the last administration, the collector is quite as likely to appoint a Democrat as a Republican. It will be a soft berth and one which is well worth striving for. Deputy Collector Burke, who has been in charge of the barge office this season, will be transferred to the world's fair grounds as soon as navigation closes.

Correction of Lake Charts—New Battle-Ship.

Special Correspondence to the MARINE REVIEW.

WASHINGTON, D. C., Nov. 24.—The expert engineers of the bureau of steam engineering have just completed specifications for the engines and boilers of the sea-going battle-ship No. 1, which will be the largest vessel in the United States navy. Notwithstanding the great size of the vesssel, she will displace 11,250 tons—she will not be a particularly speedy craft as vessels are now rated in these days of naval progress. But that is because she is to be heavily armored; not "protected," like the New York, in certain vital parts, but covered with heavy Harveyized steel plates capable of resisting the armor-piercing projectiles of great guns. The great weight of this armor has obliged the naval architects to reduce the weight allowance of the engines and boilers, and this means a reduction in speed, particularly as a liberal allowance must be made for the coal supply of the ocean-going man-of-war. The new vessel will have engines of 11,000 horse power, which, at 112½ revolutions per minute, will give her a speed of 16 knots an hour. They will be triple expansion engines. Three double-ended main and two single-ended auxiliary steel boilers will supply steam at 160 pounds pressure to drive these engines, and to make a sufficient draught the two smoke stacks will be made 100 feet in height. These tall stacks are not acceptable to lovers of beauty in marine design, but they are very economical and enable the engineers to get along in ordinary cruising without the forced draught. The details of the complicated machinery are so many that it requires a book of ninety-four printed pages to describe all of them

In his annual report, just published, Gen. Casey, chief of engineers, endorses Gen. Poe's recommendation, that an appropriation of $50,000 be made for surveys and other work connected with the correction of lake charts. The report of the chief of engineers says:

"In view of the great importance of this work to the lake marine an appropriation of $50,000 for surveys and other expenses connected with correcting and extending the charts of the northern and northwestern lakes is most earnestly recommended, as the conditions now existing are urgent and require that this amount should be available at the earliest possible moment, and an appropriation of $3,000 is recommended for the printing and distribution of the charts."

Bad Effects of the Eight-Hour Law.

Special Correspondence to the MARINE REVIEW.

TOLEDO, O., Nov. 24.—It is the general opinion here that Col. Jared Smith, government engineer at Cleveland, made a mistake in rejecting bids recently on some of the Toledo work from the dredging contractors. These are the only bids as yet rejected by Col. Smith, and he undoubtedly meant well in the matter, but it is thought that he did not allow a sufficient percentage of difference in cost of such work through the operations of the eight-hour law. Dredging contractors are cut down in their working time four to five hours a day through this law. Workmen who live on the dredges worked twelve hours a day in most cases on actual dredging. On government work now they are not only cut down to eight hours, but there is a loss of this time in starting and stopping. This law, which was intended mainly for government employes in the departments at Washington, must be modified as regards contract work.

Capt. James Van Slyke of Port Huron, owner and master of the barge Sonora, died very suddenly Tuesday morning while the vessel was at anchor outside of Turtle island, waiting for daylight.

A government survey is being made of the Maumee river.

There is plenty of grain in the elevators, but no eastern demand for it.

Changes in Army and Navy Officers.

Detroit will soon have three members of the army engineer corps. Major Milton B. Adams, from Burlington, Vt., will in a few days take up the light-house engineer duties from which Col. Wm. Ludlow was relieved some time ago, and which have been attended to in the meantime by Gen. Poe. As part of Gen. Poe's river and harbor work has been assigned to Col. Ludlow, the general will now have more time to devote to the Sault canal and 20-foot channel improvements. Capt. Smith S. Leach succeeds Major Adams at Burlington. Commander J. J. Brice, U. S. N., who will on Dec. 15 succeed Commander Nicoll Ludlow as inspector of the ninth light-house district, with headquarters at Chicago, is a relative to Senator Brice of Ohio. He has been connected with the Fish Commission.

Paying Losses on the Gilcher.

The insurance companies are showing very laudible rivalry in the prompt payment of losses. Elphicke & Co. and Crosby & Macdonald of Chicago paid $25,000 each to the owners of the lost W. H. Gilcher within a day after the receipt of the proof of loss, and David Vance of Milwaukee was only a day behind them on payment of a like amount. The Aetna has also paid its loss of $25,000 on the boat, and Smith. Davis & Co. of Buffalo write Mr. Gilchrist that $80,000, representing the amount held by four of their companies, will be paid next week. Worthington & Sill have paid $2,100 insurance on the boat's freight list. As the companies are given sixty days in which to pay these losses, it will be seen that the underwriters are making the best face possible, and come to the scratch in good form.

First Class Steel for Ships and Boilers.

The Condit-Fuller Company of Cleveland are in the field as agents of the Carbon Steel Company of Pittsburg, prepared to furnish open hearth steel plates for ships, boilers, arches and straps for vessels. A specialty will be made of steel plates to conform to Lloyds requirements or for any purpose where strictly first class quality of material is required. Vessel owners as well as builders will look more closely than heretofore to the quality of material entering into the construction of their vessels and will welcome this addition to the list of makers of strictly first class steel plates.

McDougall's whaleback passenger steamer, which is intended for service at the World's Columbian Exposition, will be launched Saturday, Dec. 3.

SEND 50 CENTS IN STAMPS TO THE MARINE REVIEW FOR TEN PHOTOTYPES AND GRAVURES OF LAKE STEAMERS NEATLY BOUND.

UNITED STATES ENGINEER OFFICE, Grand Rapids, Mich., November 8, 1892. Sealed proposals for pier construction at the harbors of Muskegon and Grand Haven, Mich., will be received at this office until 10 a. m., on December 1, 1892, and then publicly opened; and proposals for like work at the harbors of Manistee and St. Joseph, Mich., and Michigan City, Ind., will be received at this office until 10 a. m. on December 2, 1892, and then publicly opened. Specifications, blank forms and all available information will be furnished on application to this office. WILLIAM LUDLOW, Major of Engineers, Bvt. Lieut. Col., U. S. A. 17-24.

U. S. ENGINEER OFFICE, HICKOX BUILDING, 185 Euclid Avenue, Cleveland, Ohio, November 1, 1892. Sealed proposals for dredging in straight channel through Maumee Bay, for Toledo Harbor, Ohio, will be received at this office until 2 p.m. of Thursday, December 1, 1892, and then publicly opened. Specifications, blank forms, and all available information will be furnished on application to this office. JARED A. SMITH, Corps of Engineers, U. S. A.

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SECOND-HAND TUG ENGINE,

Must be about 24x24; Compound preferred.

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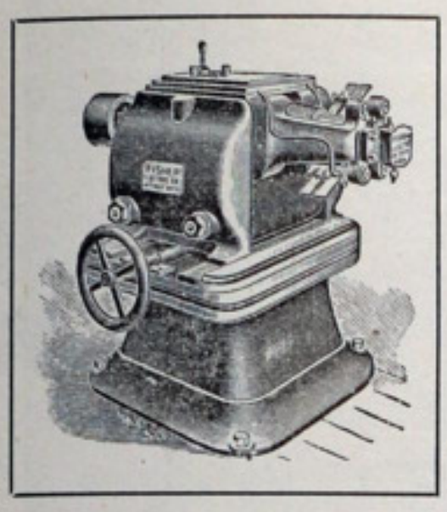

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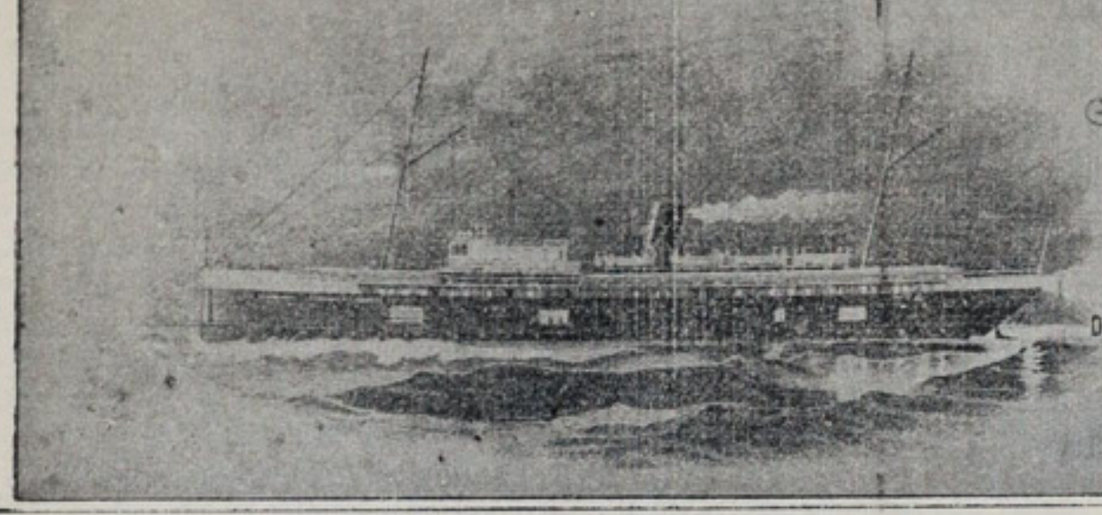

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Space under this heading may be used gratis by our advertisers or subscribers to call attention to vessels or any craft, machinery, new or second hand, that they may have for sale. Those wanting machinery of any kind or wishing to purchase vessels, are invited to take advantage of the same offer. Employers in need of professional men or men who want positions may avail themselves of the opportunities offered. Each item will be limited to three lines. Letters concerning same must mention number attached to item and be addressed MARINE REVIEW, 516 Perry-Payne Building, Cleveland, O.

151—FOR SALE—2 10 by 10 engines, wheels, shafts 3½ inches, link motion; and boiler 42 inches by 10 feet 6 inches marine, 80 pounds steam.

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157—WANTED—Good second-hand Marine boiler, tested to 100 pounds, for use in a steambarge.

158—FOR SALE—12-inch Silsby Wrecking Pump, with capacity for 2,500 gallons. Price low.

159—FOR SALE—Lighter, 72 feet long, 16 feet beam, and 5 feet deep. Will sell for $300.

160—WANTED—A second-hand tug engine, compound preferred; size to equal about 24 by 24.

U. S. ENGINEER OFFICE, 31 WEST CONgress st, Detroit, Mich., November 9, 1892. Sealed proposals for furnishing all labor, materials, and appliances, and excavating a ship channel 20 and 21 feet deep between Chicago, Duluth and Buffalo, will be received at this office until 2 p m, standard time, on the following dates, and then publicly opened: For third section, Sailors' Encampment, on December 9, 1892; for seventh section, Grossepoint Flats, on December 10, 1892; for sixth section, St. Clair Flats, on December 12, 1892; for eighth section, mouth of Detroit River, on December 13, 1892; for second section, Little Mud Lake, on December 14, 1892; for fifth section, foot of Lake Huron, on December 15, 1892, for fourth section, Mud Lake Shoal, on December 16, 1892; for first section, Round Island Shoals, on December 17, 1892. Specifications, blank forms, and all available information will be furnished on application to this office. O. M. POE, Colonel Corps of Engineers, Bvt. Brig.-General, U. S. A.

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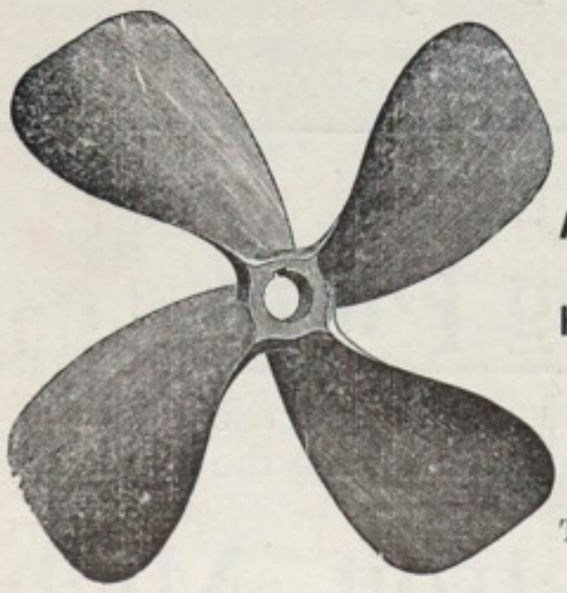

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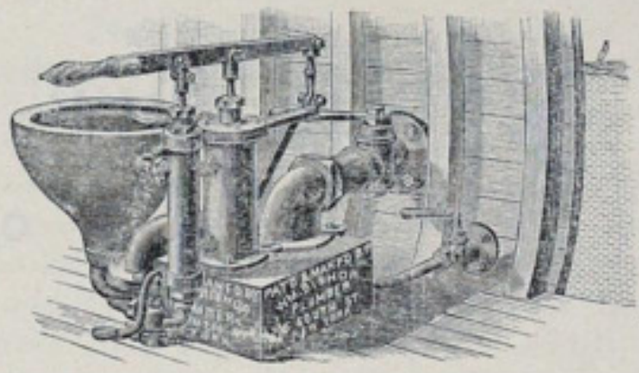

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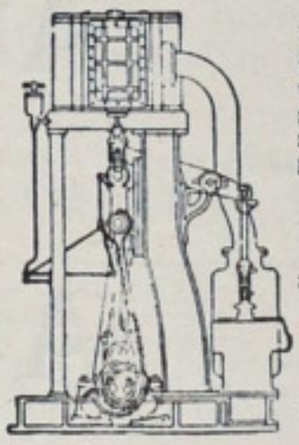

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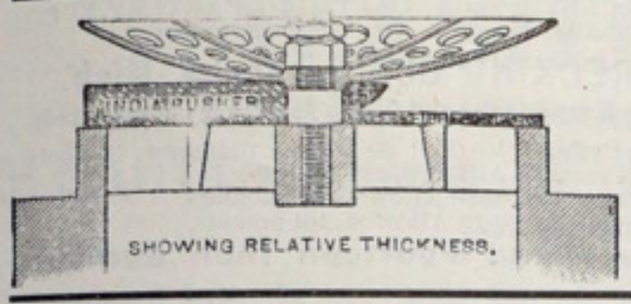

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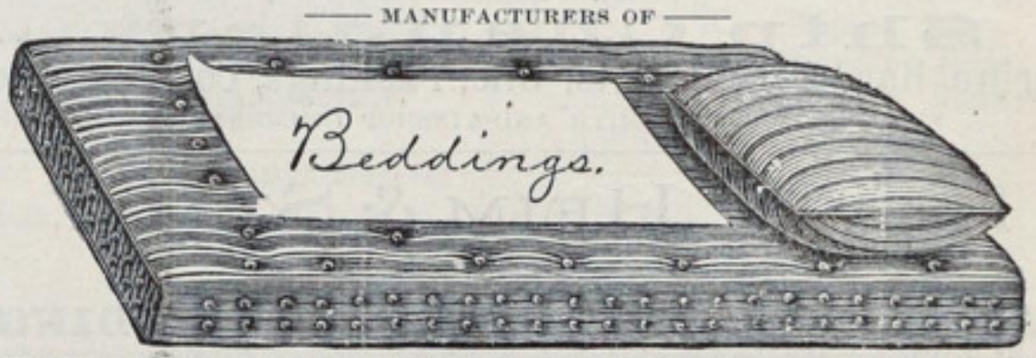

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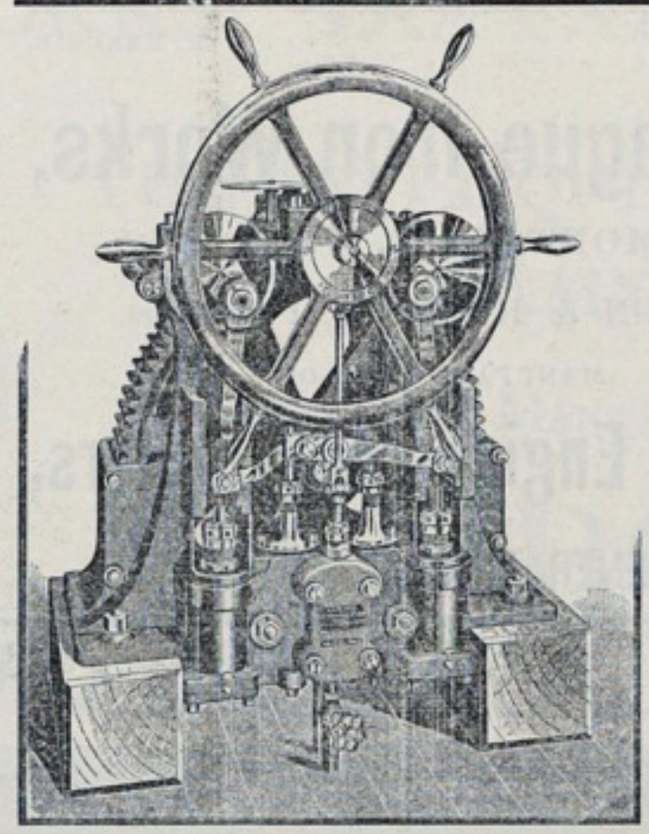
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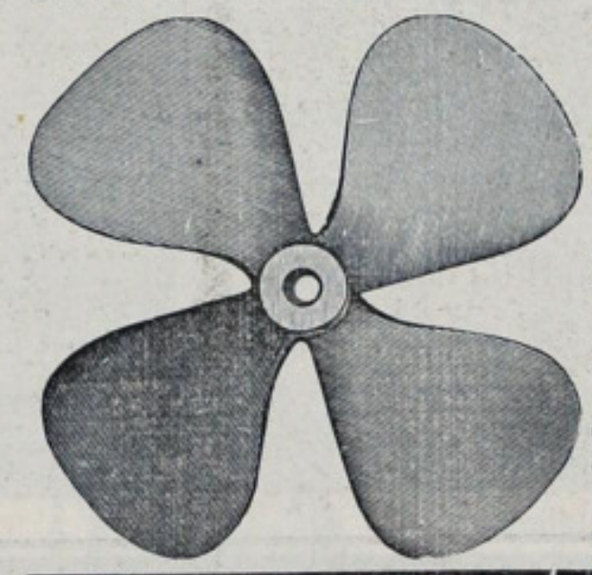
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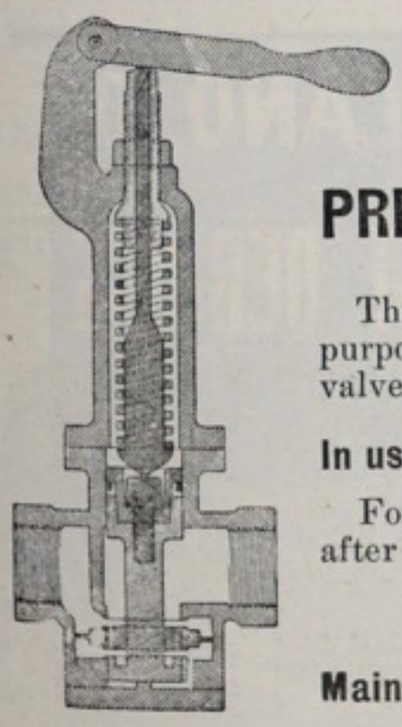
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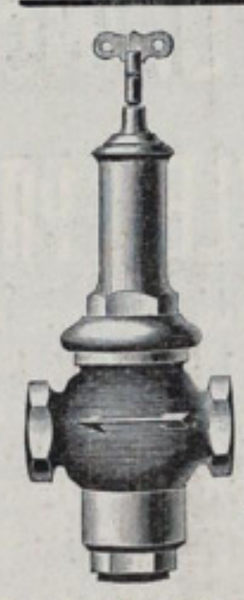
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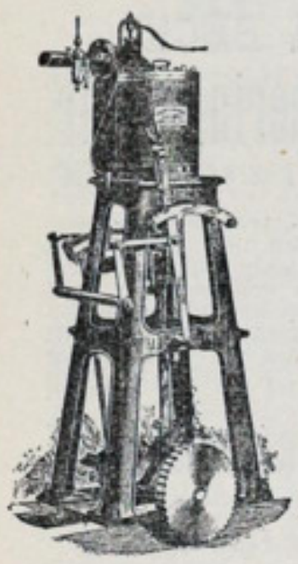

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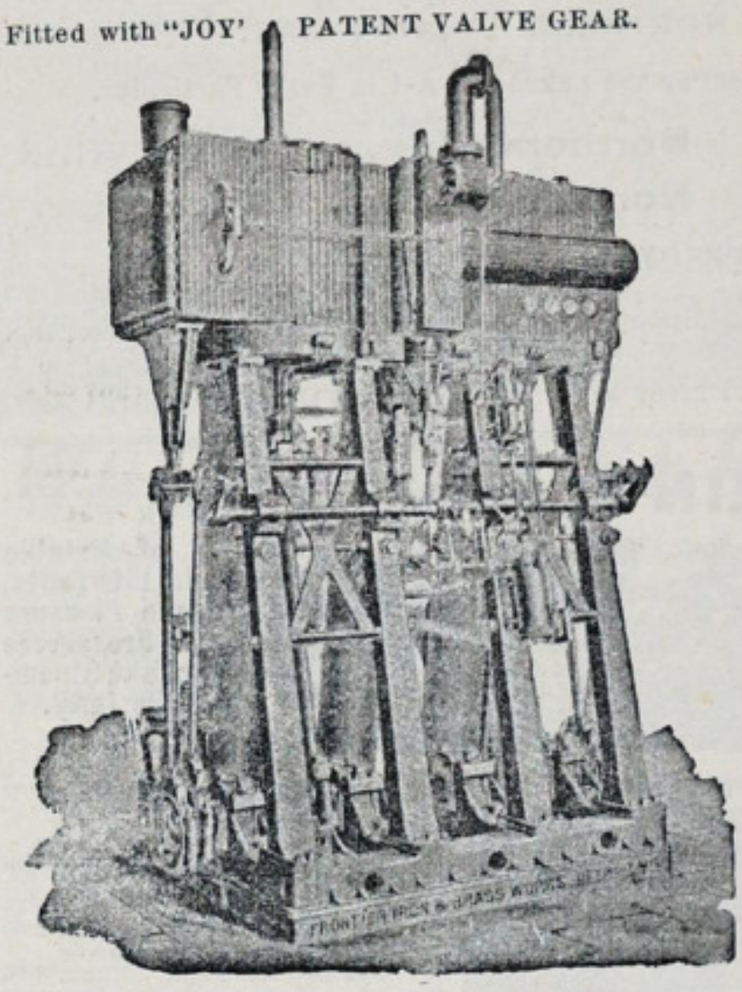

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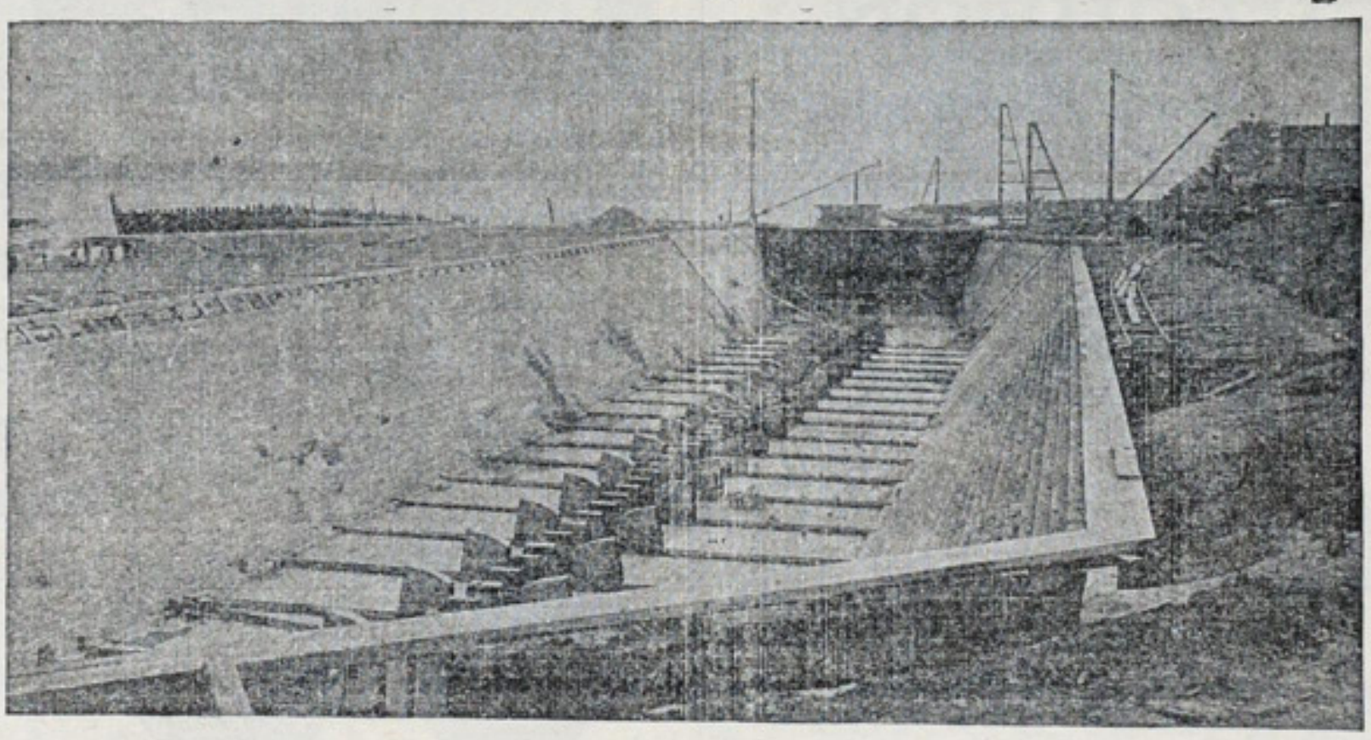

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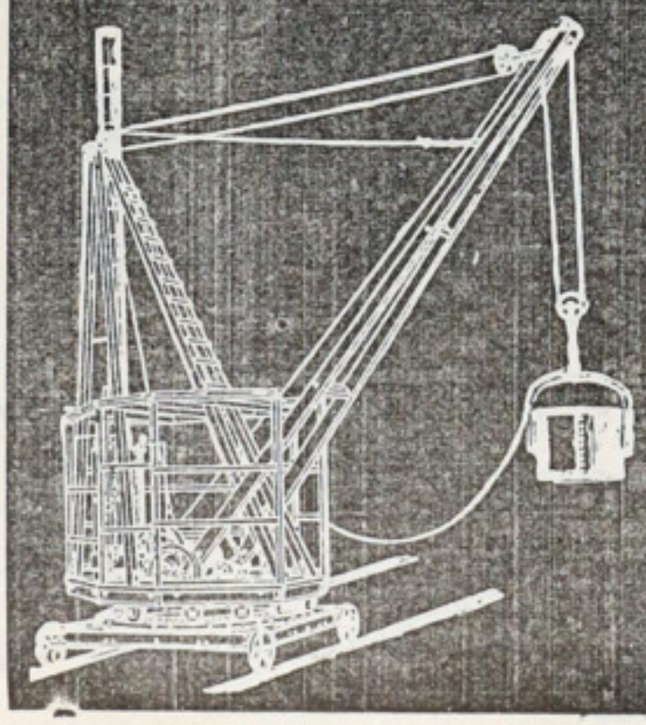

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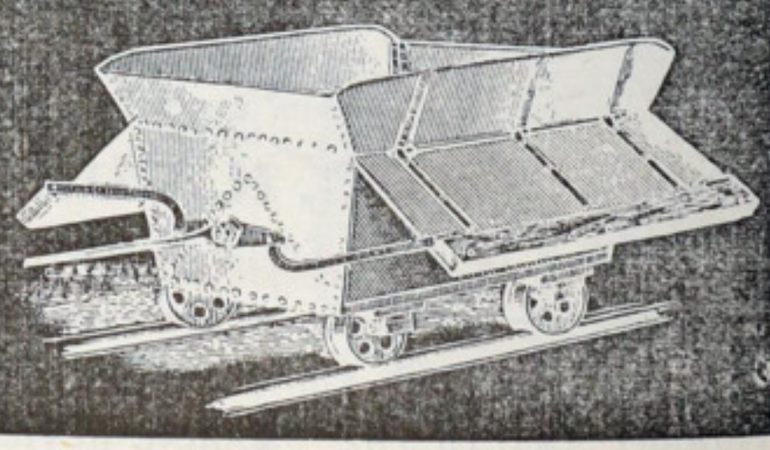

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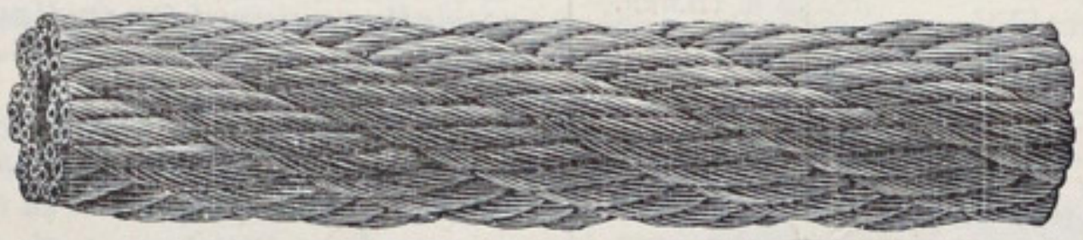

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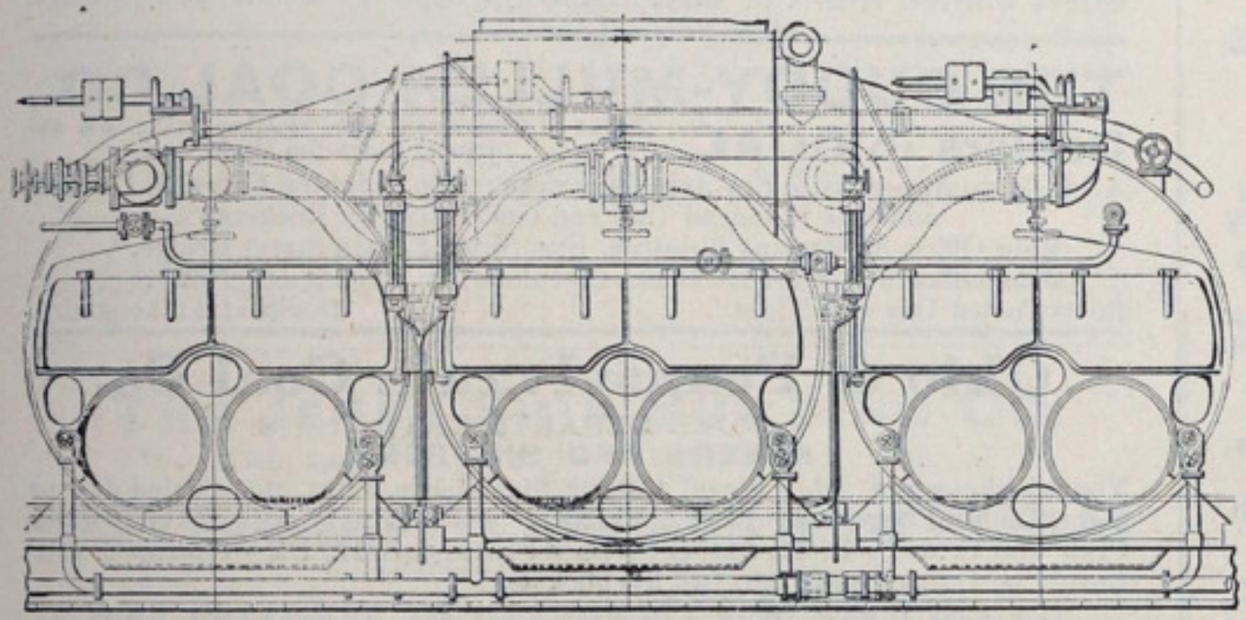

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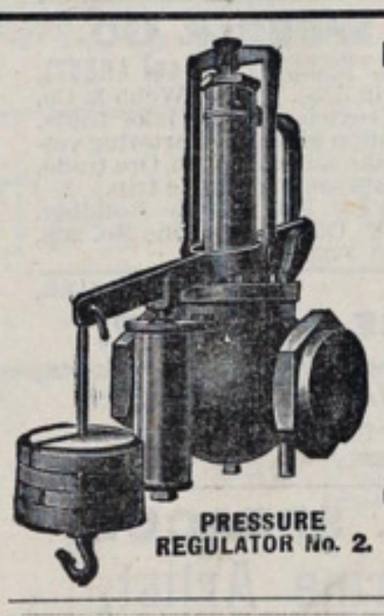

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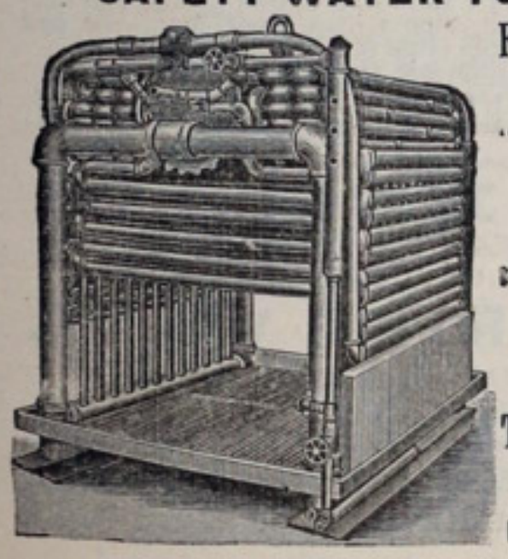

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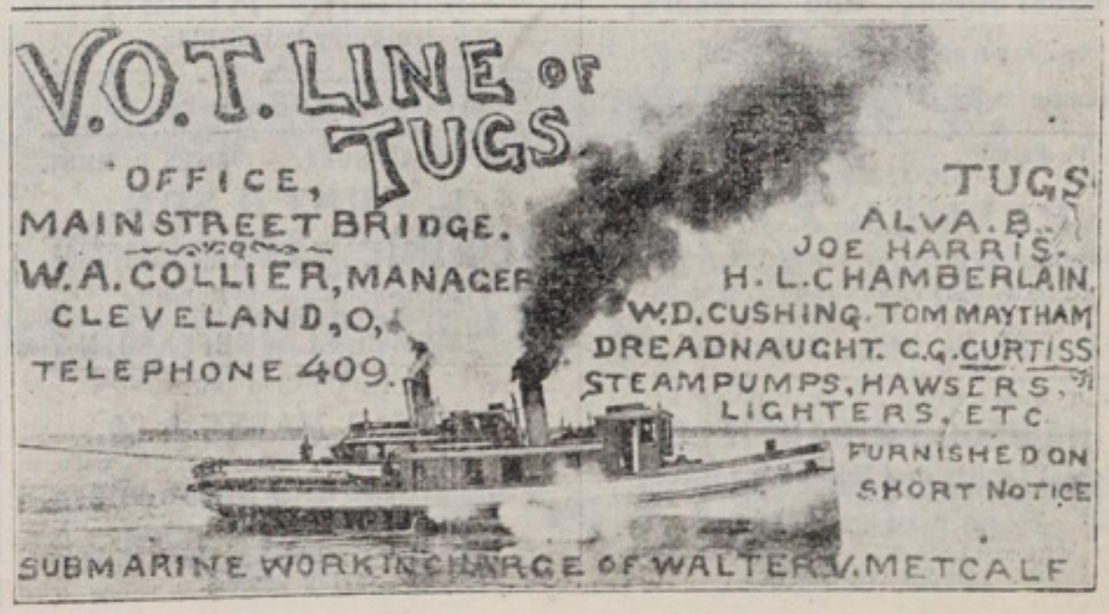

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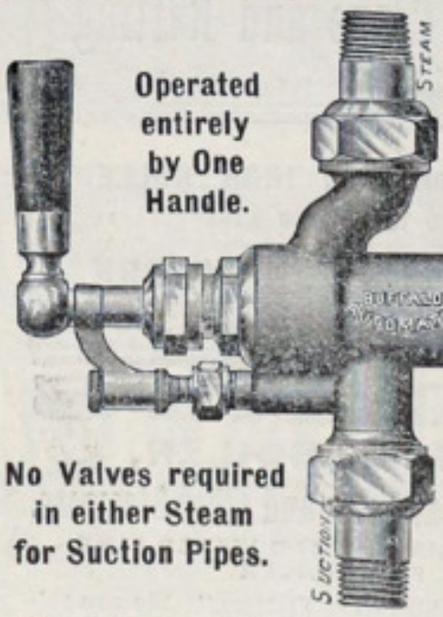

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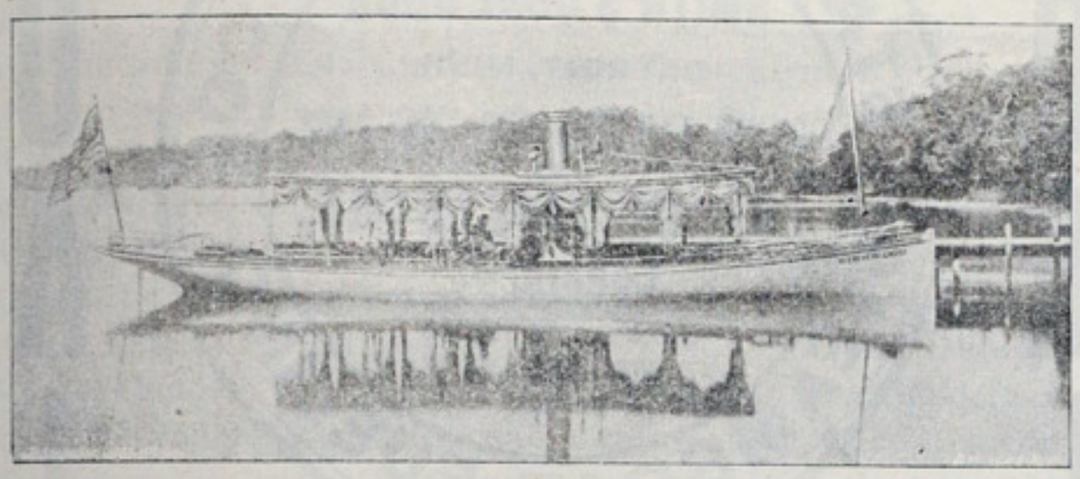

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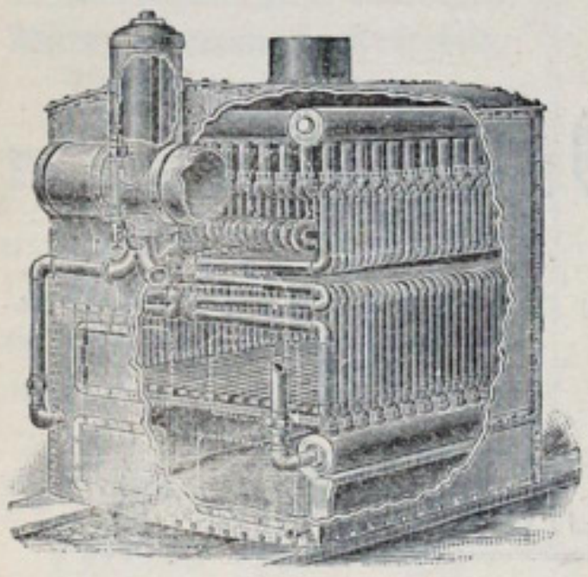

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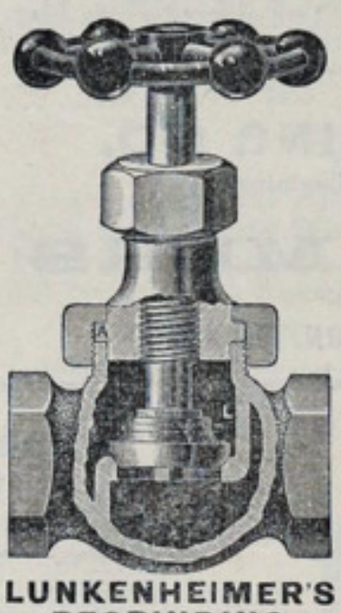

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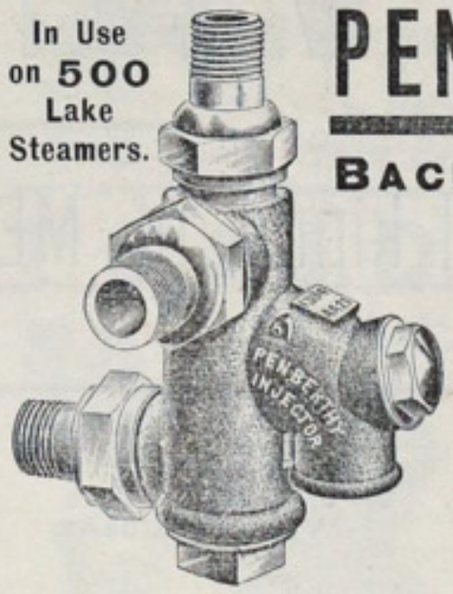

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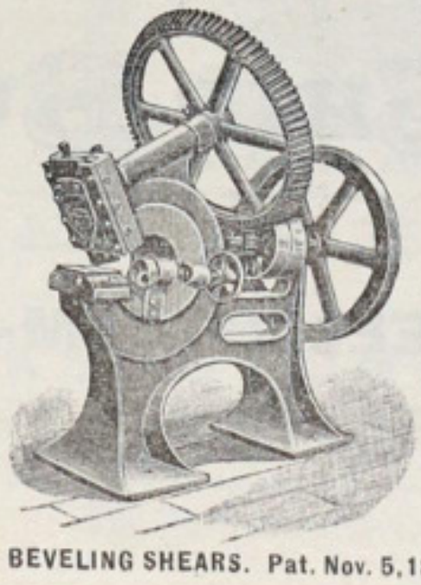

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